

STATE OF TENNESSEE DEPARTMENT OF HEALTH **ENVIRONMENTAL LABORATORIES**

TDH: Lab Services JRL Lab Services - Jackson Regional Lab Jackson, TN 38301 731-426-0686

TDH: Lab Services KRL Lab Services - Knoxville Regional Lab Knoxville, TN 37920 865-549-5201

TDH: Lab Services NCL Lab Services - Nashville Central Lab Nashville, TN 37243 615-262-6300

Sent To:

Greg Denton

TDEC-WPC

6th Floor, L & C Tower Annex

401 Church Street

Nashville, TN 37243-1534

Michael Atchley TDEC-WPC

Knoxville FO

3711 Middlebrook Pike Knoxville, TN 37921

Lab ID: K00002336

Knoxville Regional Laboratory

Sampling Agency: TDEC: Division of Water Pollution Control

Billing Code:

327.34-20

This is to certify that the following results were determined using good laboratory pratices and in accordance with federal or state approved methodologies.

K00002336001

Project Name:

TVA-Ash Spill

Sample Description:

Sampler Project Name: TVA Ash Spill

Emory River mile 12.1

Project Site No.:

Station No.:

EMORY012.1RO

Date/Time Collected:

04/30/2009 09:35

Sampler's Name: County:

Brandy Long ROANE - 73

Sample Matrix: EFO:

Water

Knoxville

Sampling Agency: **Billing Code:**

TDEC-WPC 327.34-20

Send Report To: Agency Invoiced:

TDEC-WPC TDEC-WPC

Priority Date:

Date/Time Received:

04/30/2009 14:25

Received By:

E McCrary

Field Determinations

7.03 pH:

Chlorine, residual:

65

pH Units **uMHO**

Conductivity: Temperature:

19.12

Dissolved Oxygen: 8.42

Other:

Flow:

CFS

mg/L

TEST: Alkalinity, Total	ME					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	20	mg/L	3.8	10	S Burchfield	5/1/2009

TEST: Hardness, Calcium	METHOD: SM 3500-Ca D						
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE	
Calcium hardness	23	mg/L	0.7	1	P Leathers	5/1/2009	

TEST: Residue, Settleable	ME.						
ANALYTE	RESULT	UNITS	MDL M		ANALYZED BY:	: DATE	
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	5/1/2009	

TEST: Residue, Suspended	METHOD: SM 2540D					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peeples	5/1/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

K00002336002

Project Name:

TVA-Ash Spill

Sample Description:

Sampler Project Name: TVA Ash Spill

Emory River Mile 2.1

Project Site No.:

Station No.:

EMORY002.1RO

Date/Time Collected:

04/30/2009 10:35

Sampler's Name:

Brandy Long

County:

ROANE - 73

Sample Matrix:

Water

EFO:

Knoxville

Sampling Agency:

TDEC-WPC

Billing Code: Send Report To: 327.34-20 TDEC-WPC

Agency Invoiced:

TDEC-WPC

Priority Date:

Date/Time Received:

04/30/2009 14:25

Received By:

E McCrary

Field Determinations

pH: 7.30

Chlorine, residual:

uMHO

Conductivity: Temperature:

20.62

60

Dissolved Oxygen: 9.84

Other:

Flow:

CFS

mg/L

pH Units

TEST: Alkalinity, Total		·				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	15	mg/L	3.8	10	S Burchfield	5/1/2009

TEST: Hardness, Calcium	ST: Hardness, Calcium METHOD: SM 3500-Ca D					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	20	mg/L	0.7	1	P Leathers	5/1/2009

TEST: Residue, Settleable METHOD: SM 2540F							
ANALYTE	RESULT	UNITS	MDL.	MQL	ANALYZED BY:	DATE	
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	5/1/2009	

TEST: Residue, Suspended	METHOD: SM 2540D					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peeples	5/1/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

K00002336003

Project Name:

TVA-Ash Spill

Sample Description:

Sampler Project Name: TVA Ash Spill

Approx 100' d/s from middle dredge point

Project Site No.:

2A

Station No.:

Dredge Plume

Date/Time Collected: Sampler's Name:

04/30/2009 10:47

County:

Brandy Long

Sample Matrix:

ROANE - 73

EFO:

Water

Sampling Agency:

Knoxville

Billing Code:

TDEC-WPC

Send Report To:

327.34-20 TDEC-WPC

Agency Invoiced:

TDEC-WPC

Priority Date:

Date/Time Received:

04/30/2009 14:25

Received By:

E McCrary

TEST: Alkalinity, Total	MET					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	16	mg/L	3.8	10	S Burchfield	5/1/2009

Field Determinations

Dissolved Oxygen: 9.31

Chlorine, residual:

Conductivity:

Temperature:

7.29

62

19.97

pH Units

uMHO

mg/L

CFS

pH:

Other:

Flow:

TEST: Hardness, Calcium	METHOD: SM 3500-Ca D						
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE	
Calcium hardness	18	mg/L	0.7	1	P Leathers	5/1/2009	

TEST: Residue, Settleable						
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	5/1/2009

TEST: Residue, Suspended	METHOD: SM 2540D					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	Ú	mg/L	10	10	A Peeples	5/1/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

K00002336004

Project Name:

TVA-Ash Spill

Sample Description:

Emory River mile 1.9 at underwater weir

Sampler Project Name: TVA Ash Spill

Project Site No.:

2B

Station No.:

EMORY001.9RO

Date/Time Collected: Sampler's Name:

04/30/2009 10:55

County:

Brandy Long

Sample Matrix:

ROANE - 73

EFO:

Water

Sampling Agency:

Knoxville

Billing Code:

TDEC-WPC 327.34-20 TDEC-WPC

Send Report To: Agency Invoiced:

TDEC-WPC

Priority Date:

Date/Time Received:

04/30/2009 14:25

Received By:

E McCrary

Field Determinations

pH:

7.20

pH Units

Chlorine, residual:

Conductivity:

59

uMHO

Temperature: 19.70 Dissolved Oxygen: 9.22

mg/L

Other:

Flow:

CFS

TEST: Alkalinity, Total	ME.	THOD: EPA 31	0.2	- " .		
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	16	mg/L	3.8	10	S Burchfield	5/1/2009

TEST: Hardness, Calcium	ME.	THOD: SM 350	0-Ca D			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	21	mg/L	0.7	1	P Leathers	5/1/2009

TEST: Residue, Settleable	ttleable METHOD: SM 2540F					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	5/1/2009

TEST: Residue, Suspended	ME.	0D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peeples	5/1/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

K00002336005

Project Name:

TVA-Ash Spill

Sample Description:

Sampler Project Name: TVA Ash Spill

Emory River mile 1.7

Project Site No.:

3

Station No.:

EMORY001.7RO

Date/Time Collected:

04/30/2009 11:07

Sampler's Name:

Brandy Long

County:

ROANE - 73

Sample Matrix:

Water

EFO:

Knoxville

Sampling Agency: **Billing Code:**

TDEC-WPC 327.34-20

Send Report To:

TDEC-WPC

Agency Invoiced:

TDEC-WPC

Priority Date:

Date/Time Received:

04/30/2009 14:25

Received By:

E McCrary

Field Determinations

pH:

8.68

pH Units

uMHO

Chlorine, residual:

Conductivity: Temperature:

139

21.91

Dissolved Oxygen: 11.58

mg/L

Other:

Flow:

CFS

TEST: Alkalinity, Total	MET	ΓHOD: EPA 31	0.2			
ANALYTE	RESULT UNITS MDL MQL ANALYZED BY:					
Total Alkalinity	55	mg/L	3.8	10	S Burchfield	5/1/2009

TEST: Hardness, Calcium	METHOD: SM 3500-Ca D					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	48	mg/L	0.7	1	P Leathers	5/1/2009

TEST: Residue, Settleable	METHOD: SM 2540F					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	5/1/2009

TEST: Residue, Suspended METHOD: SM 2540D						
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peeples	5/1/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

K00002336006

Project Name:

TVA-Ash Spill

Sample Description:

Sampler Project Name: TVA Ash Spill

Date/Time Collected:

Emory River mile 0.1

Project Site No.:

Station No.:

EMORY000.1RO 04/30/2009 11:17

Sampler's Name:

Brandy Long

County: Sample Matrix: **ROANE - 73**

EFO:

Water

Sampling Agency:

Knoxville

Billing Code: Send Report To: TDEC-WPC 327.34-20

Agency Invoiced:

TDEC-WPC TDEC-WPC

Priority Date:

Date/Time Received:

04/30/2009 14:25

Received By:

E McCrary

pH:	8.49	
A		

Chlorine, residual:

Field Determinations

Conductivity:

128

uMHO

pH Units

Temperature:

21.98 Dissolved Oxygen: 10.94

mg/L

Other:

Flow: **CFS**

TEST: Alkalinity, Total	METHOD: EPA 310.2					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	75	mg/L	3.8	10	S Burchfield	5/1/2009

TEST: Hardness, Calcium	ME	THOD: SM 350	0-Ca D			·
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	62	mg/L	0.7	1	P Leathers	5/1/2009

TEST: Residue, Settleable	METHOD: SM 2540F						
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE	
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	5/1/2009	

TEST: Residue, Suspended METHOD: SM 2540D						
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peeples	5/1/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

K00002336007

Project Name:

TVA-Ash Spill

Sample Description:

Clinch River mile 2.3

Sampler Project Name: TVA Ash Spill

5

Project Site No.: Station No.:

CLINC002.3RO

Date/Time Collected:

04/30/2009 11:27

Sampler's Name:

Brandy Long

County: Sample Matrix:

ROANE - 73

EFO:

Water

Sampling Agency:

Knoxville

Billing Code: Send Report To: TDEC-WPC 327.34-20

Agency Invoiced:

TDEC-WPC

Priority Date:

Date/Time Received:

04/30/2009 14:25

Received By:

E McCrary

TEST: Alkalinity, Total	METHOD: EPA 310.2						
ANALYTE	RESULT	UNITS	MQL	ANALYZED BY:	DATE		
Total Alkalinity	75	mg/L	3.8	10	S Burchfield	5/1/2009	

Field Determinations

Dissolved Oxygen: 9.83

Chlorine, residual:

Conductivity:

Temperature:

7.90

98

22.00

pH Units

uMHO

mg/L

CFS

pH:

Other:

Flow:

TEST: Hardness, Calcium	m METHOD: SM 3500-Ca D						
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE	
Calcium hardness	61	mg/L	0.7	1	P Leathers	5/1/2009	

TEST: Residue, Settleable	METHOD: SM 2540F						
ANALYTE	RESULT	UNITS	MQL	ANALYZED BY:	DATE		
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	5/1/2009	

TEST: Residue, Suspended METHOD: SM 2540D							
ANALYTE	RESULT	RESULT UNITS ME		MQL	ANALYZED BY:	DATE	
Total Suspended Solids	14	mg/L	10	10	A Peeples	5/1/2009	

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

K00002336008

Project Name:

TVA-Ash Spill

Sample Description:

Clinch River TVA Discharge Point

Sampler Project Name: TVA Ash Spill

Project Site No.:

5A

Station No.: Date/Time Collected: TN0005452Outfall002

Sampler's Name:

04/30/2009 11:37

County:

Brandy Long

Sample Matrix:

ROANE - 73

EFO:

Water

Sampling Agency:

Knoxville TDEC-WPC

Billing Code: Send Report To: 327.34-20 TDEC-WPC TDEC-WPC

Agency Invoiced: **Priority Date:**

Date/Time Received:

04/30/2009 14:25

Received By:

E McCrary

TEST: Alkalinity, Total	METHOD: EPA 310.2						
ANALYTE	RESULT UNITS MDL MQL ANALYZED BY:						
Total Alkalinity	26 mg/L 3.8 10 S Burchfield						

Field Determinations

Dissolved Oxygen: 9.63

Chlorine, residual:

Conductivity:

Temperature:

pH:

Other:

Flow:

7.62

88

22.35

pH Units

uMHO

mg/L

CFS

TEST: Hardness, Calcium	METHOD: SM 3500-Ca D						
ANALYTE	RESULT UNITS MDL MQL ANALYZED BY:						
Calcium hardness	35	mg/L	0.7	1	P Leathers	5/1/2009	

TEST: Residue, Settleable	METHOD: SM 2540F						
ANALYTE	RESULT	ANALYZED BY:	DATE				
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	5/1/2009	

TEST: Residue, Suspended METHOD: SM 2540D						
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	20	mg/L	10	10	A Peeples	5/1/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

K00002336009

Project Name:

pH: 8.42

pH Units

Sample Description:

TVA-Ash Spill

Clinch River mile 4.5 near Sugar Grove Valley F Chlorine, residual:

Field Determinations

CFS

Sampler Project Name: TVA Ash Spill

Conductivity:

uMHO

Project Site No.:

6

133 21.85

Station No.:

CLINC004.5RO

Temperature: Dissolved Oxygen: 10.95

mg/L

Date/Time Collected: Sampler's Name:

04/30/2009 11:49

Other: Flow:

County:

Brandy Long ROANE - 73

Sample Matrix: EFO:

Water Knoxville

Sampling Agency: **Billing Code:**

TDEC-WPC 327.34-20

Send Report To: Agency Invoiced:

TDEC-WPC TDEC-WPC

Priority Date:

Date/Time Received:

04/30/2009

14:25

Received By:

E McCrary

TEST: Alkalinity, Total	METHOD: EPA 310.2						
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE	
Total Alkalinity	99	mg/L	3.8	10	S Burchfield	5/1/2009	

TEST: Hardness, Calcium	ME	THOD: SM 350				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	80	mg/L	0.7	1	P Leathers	5/1/2009

TEST: Residue, Settleable METHOD: SM 2540F							
ANALYTE	RESULT	UNITS	MQL	MQL ANALYZED BY:			
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	5/1/2009	

TEST: Residue, Suspended	ME.	THOD: SM 254	0D			·-·
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peeples	5/1/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit



STATE OF TENNESSEE **DEPARTMENT OF HEALTH ENVIRONMENTAL LABORATORIES**

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TDH: Lab Services KRL Lab Services - Knoxville Regional Lab Knoxville, TN 37920 865-549-5201

TDH: Lab Services NCL Lab Services - Nashville Central Lab Nashville, TN 37243 615-262-6300

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3711 Middlebrook Pike Knoxville, TN 37921

Lab ID: K00002336

Knoxville Regional Laboratory

Sampling Agency: TDEC: Division of Water Pollution Control

Billing Code:

327.34-20

This is to certify that the following results were determined using good laboratory pratices and in accordance with federal or state approved methodologies.

Analytical Supervisor

K00002336001

Project Name:

TVA-Ash Spill

Sample Description:

Emory River mile 12.1

Sampler Project Name: TVA Ash Spill

Project Site No.:

Station No.:

EMORY012.1RO

Date/Time Collected: Sampler's Name:

04/30/2009 09:35

County:

Brandy Long

Sample Matrix:

ROANE - 73 Water

EFO:

Knoxville

Sampling Agency: **Billing Code:**

TDEC-WPC 327.34-20 TDEC-WPC

Send Report To: Agency Invoiced:

TDEC-WPC

Priority Date:

Date/Time Received:

04/30/2009 14:25

Received By:

E McCrary

Field Determinations

pH:

7.03

pH Units

Chlorine, residual:

Conductivity:

65 19.12 uMHO

Temperature:

Dissolved Oxygen: 8.42

mg/L

Other: Flow:

CFS

TEST: Digestion Metals	MET	HOD: EPA 20	0.2			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATĘ
Digestion Metals	05/02/2009				A Wilson	5/2/2009

TEST: ICP	METHOD: EPA 200.7					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	150	μg/L	2.9	10	A Wilson	5/14/2009

TEST: ICP-MS	MET	THOD: EPA 200	0.8			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	48	μg/L	6.4	10	A Wilson	5/8/2009
Antimony	U	μg/L	0.33	1	A Wilson	5/8/2009
Arsenic	U	μg/L	0.93	5	A Wilson	5/9/2009
Barium	26	μg/L	2.5	5	A Wilson	5/8/2009
Beryllium	U	μg/L	0.11	1	A Wilson	5/8/2009
Cadmium	U	μg/L	0.41	1	A Wilson	5/8/2009
Chromium	U	μg/L	2.0	5	A Wilson	5/8/2009
Cobalt	0.27J	μg/L	0.04	1	A Wilson	5/8/2009
Copper	3.1	μg/L	0.38	1	A Wilson	5/8/2009
Lead	0.14J	μg/L	0.10	1	A Wilson	5/8/2009
Manganese	139	μg/L	0.42	1	A Wilson	5/8/2009
Nickel	0.98J	μg/L	0.25	1	A Wilson	5/8/2009
Selenium	U	μg/L	1.3	5	A Wilson	5/9/2009
Silver	U	μg/L	0.03	0.25	A Wilson	5/8/2009
Thallium	U	μg/L	0.03	1	A Wilson	5/8/2009
Vanadium	U	μg/L	3.4	5	A Wilson	5/9/2009
Zinc	U	μg/L	1.9	5	A Wilson	5/8/2009

K00002336001

Project Name:

TVA-Ash Spill

Sample Description:

Emory River mile 12.1

Sampler Project Name: TVA Ash Spill

Project Site No.:

Station No.:

EMORY012.1RO

Date/Time Collected:

04/30/2009 09:35

Sampler's Name: County:

Brandy Long

Sample Matrix:

ROANE - 73

EFO:

Water Knoxville

Sampling Agency: **Billing Code:**

TDEC-WPC

Send Report To: Agency Invoiced: 327.34-20 TDEC-WPC TDEC-WPC

Priority Date:

Date/Time Received:

04/30/2009

14:25

Received By:

E McCrary

Field Determinations

:Hq

7.03

pH Units

Chlorine, residual:

Conductivity:

65

uMHO

mg/L

Temperature: **Dissolved Oxygen: 8.42**

19.12

Other:

Flow:

CFS

TEST: Mercury	ME	ΓHOD: EPA 24	5.1			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	0.22	μg/L	0.029	0.2	A Bass	4/30/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

K00002336002

Project Name:

TVA-Ash Spill

Sample Description:

Emory River Mile 2.1

Sampler Project Name: TVA Ash Spill

Project Site No.:

Station No.:

EMORY002.1RO

Date/Time Collected:

04/30/2009 10:35

Sampler's Name: County:

Brandy Long

Sample Matrix:

ROANE - 73

EFO:

Water

Sampling Agency:

Knoxville

Billing Code:

TDEC-WPC 327.34-20

Send Report To: Agency Invoiced:

TDEC-WPC TDEC-WPC

Priority Date:

Date/Time Received:

04/30/2009 14:25

Received By:

E McCrary

Field Determinations

pH:

7.30

pH Units

Chlorine, residual:

Conductivity:

60

uMHO

Dissolved Oxygen: 9.84

Temperature: 20.62

mg/L

Other:

Flow:

CFS

TEST: Digestion Metals	MET	METHOD: EPA 200.2					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE	
Digestion Metals	05/02/2009	•			A Wilson	5/2/2009	

TEST: ICP	METHOD: EPA 200.7						
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE	
Iron	180	μg/L	2.9	10	A Wilson	5/14/2009	

TEST: ICP-MS	ME ⁻	ΓHOD: EPA 20	0.8			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	250	μg/L	32.0	50	A Wilson	5/8/2009
Antimony	U	μg/L	0.33	1	A Wilson	5/8/2009
Arsenic	U	μg/L	0.93	5	A Wilson	5/9/2009
Barium	29	μg/L	2.5	5	A Wilson	5/8/2009
Beryllium	U	μg/L	0.11	1	A Wilson	5/8/2009
Cadmium	U	μg/L	0.41	1	A Wilson	5/8/2009
Chromium	U	μg/L	2.0	5	A Wilson	5/8/2009
Cobalt	0.27J	μg/L	0.04	1	A Wilson	5/8/2009
Copper	1.1	μg/L	0.38	1	A Wilson	5/8/2009
Lead	0.41J	μg/L	0.10	1	A Wilson	5/8/2009
Manganese	43	μg/Ĺ	0.42	1	A Wilson	5/8/2009
Nickel	0.98J	μg/L	0.25	1	A Wilson	5/8/2009
Selenium	U	μg/L	1.3	5	A Wilson	5/9/2009
Silver	U	μg/L	0.03	0.25	A Wilson	5/8/2009
Thallium	0.037J	μg/L	0.03	1	A Wilson	5/8/2009
Vanadium	U	μg/L	3.4	5	A Wilson	5/9/2009
Zinc	U	μg/L	1.9	5	A Wilson	5/8/2009

K00002336002

Project Name:

TVA-Ash Spill

Sample Description:

Emory River Mile 2.1

Sampler Project Name: TVA Ash Spill

Project Site No.:

Station No.:

EMORY002.1RO

Date/Time Collected:

04/30/2009 10:35

Sampler's Name: County:

Brandy Long

Sample Matrix:

ROANE - 73

EFO:

Water

Sampling Agency:

Knoxville

Billing Code:

TDEC-WPC 327.34-20

Send Report To: Agency Invoiced:

TDEC-WPC TDEC-WPC

Priority Date:

Date/Time Received:

04/30/2009 14:25

Received By:

TEST: Mercury

E McCrary

|--|

Field Determinations

Dissolved Oxygen: 9.84

Chlorine, residual:

Conductivity:

Temperature:

7.30

20.62

60

pH Units

uMHO

mg/L

CFS

pH:

Other: Flow:

ANALYTE	 RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	0.03J	μg/L	0.029	0.2	A Bass	4/30/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

K00002336003

Project Name:

TVA-Ash Spill

Sample Description:

Approx 100' d/s from middle dredge point

Sampler Project Name: TVA Ash Spill

Project Site No.:

2A

Station No.:

Dredge Plume

Date/Time Collected:

04/30/2009 10:47

Sampler's Name:

Brandy Long

County:

ROANE - 73

Sample Matrix: EFO:

Water

Sampling Agency:

Knoxville TDEC-WPC

Billing Code: Send Report To: 327.34-20 TDEC-WPC

Agency Invoiced: **Priority Date:**

TDEC-WPC

Date/Time Received:

04/30/2009 14:25

Received By:

E McCrary

Field Determinations

pH:

7.29

pH Units

uMHO

Chlorine, residual:

Conductivity:

62

19.97

Temperature: Dissolved Oxygen: 9.31

Other:

Flow:

CFS

mg/L

TEST: Digestion Metals	METHOD: EPA 200.2					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	05/02/2009				A Wilson	5/2/2009

TEST: ICP	METHOD: EPA 200.7						
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE	
Iron	180	μg/L	2.9	10	A Wilson	5/14/2009	

TEST: ICP-MS	MET	METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	220	μg/L	32.0	50	A Wilson	5/8/2009
Antimony	U	μg/L	0.33	1	A Wilson	5/8/2009
Arsenic	U	μg/L	0.93	5	A Wilson	5/9/2009
Barium	30	μg/L	2.5	5	A Wilson	5/8/2009
Beryllium	U	μg/L	0.11	1	A Wilson	5/8/2009
Cadmium	U	μg/L	0.41	1	A Wilson	5/8/2009
Chromium	U	μg/L	2.0	5	A Wilson	5/8/2009
Cobalt	0.28J	μg/L	0.04	1	A Wilson	5/8/2009
Copper	4.5	μg/L	0.38	1	A Wilson	5/8/2009
Lead	0.50J	μg/L	0.10	1	A Wilson	5/8/2009
Manganese	44	μg/L	0.42	1	A Wilson	5/8/2009
Nickel	1.1	μg/L	0.25	1	A Wilson	5/8/2009
Selenium	U.	μg/L	1.3	5	A Wilson	5/9/2009
Silver	U	μg/L	0.03	0.25	A Wilson	5/8/2009
Thallium	0.035J	μg/L	0.03	1	A Wilson	5/8/2009
Vanadium	U	μg/L	3.4	5	A Wilson	5/9/2009
Zinc	U	μg/L	1.9	5	A Wilson	5/8/2009

K00002336003

Project Name:

TVA-Ash Spill

Sample Description:

Approx 100' d/s from middle dredge point

Sampler Project Name: TVA Ash Spill

Project Site No.:

2A

Station No.:

Date/Time Collected:

Dredge Plume

Sampler's Name:

04/30/2009 10:47 Brandy Long

County:

ROANE - 73

Sample Matrix: EFO:

Water

Sampling Agency:

Knoxville

Billing Code:

TDEC-WPC 327.34-20

Send Report To: Agency Invoiced: TDEC-WPC TDEC-WPC

Priority Date:

Date/Time Received:

04/30/2009

14:25

Received By:

TEST: Mercury

E McCrary

METHOD:	EPA	245.1	
1715 11100.		270.1	

Field Determinations

Dissolved Oxygen: 9.31

Chlorine, residual:

Conductivity:

Temperature:

7.29

62

19.97

pH Units

uMHO

mg/L

CFS

pH:

Other:

Flow:

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	0.19J	µg/L	0.029	0.2	A Bass	4/30/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

Lab-Sample Number: K00002336004
Project Name: TVA-Ash Spill

Sample Description: Emory River mile 1.9 at underwater weir

Sampler Project Name: TVA Ash Spill

Project Site No.: 28

Station No.: EMORY001.9RO

Date/Time Collected: 04/30/2009 10:55 **Sampler's Name:** Brandy Long

County: ROANE - 73
Sample Matrix: Water

EFO: Knoxville

Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC

Priority Date:

Date/Time Received: 04/30/2009 14:25

Received By: E McCrary

Field Determinations
pH: 7.20 pH Units
Chlorine, residual:
Conductivity: 59 uMHO

Temperature: 19.70

Dissolved Oxygen: 9.22 **Other:**

Flow: CFS

mg/L

TEST: Digestion Metals	METHOD: EPA 200.2					
ANALYTE	RESULT	ANALYZED BY:	DATE			
Digestion Metals	05/02/2009				A Wilson	5/2/2009

TEST: ICP METHOD: EPA 200.7						
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	180	μg/L	2.9	10	A Wilson	5/14/2009

TEST: ICP-MS	MET	METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	UNITS MDL		ANALYZED BY:	DATE
Aluminum	170	µg/L	6.4	10	A Wilson	5/8/2009
Antimony	U	μg/L	0.33	1	A Wilson	5/8/2009
Arsenic	U	μg/L	0.93	5	A Wilson	5/9/2009
Barium	26	μg/L	2.5	5	A Wilson	5/8/2009
Beryllium	U	μg/L	0.11	1	A Wilson	5/8/2009
Cadmium	U	μg/L	0.41	1	A Wilson	5/8/2009
Chromium	U	μg/L	2.0	5	A Wilson	5/8/2009
Cobalt	0.26J	μg/L	0.04	1	A Wilson	5/8/2009
Copper	3.1	μg/L	0.38	1	A Wilson	5/8/2009
Lead	0.37J	μg/L	0.10	1	A Wilson	5/8/2009
Manganese	45	μg/L	0.42	1	A Wilson	5/8/2009
Nickel	0.95J	μg/L	0.25	1	A Wilson	5/8/2009
Selenium	U	μg/L	1.3	5	A Wilson	5/9/2009
Silver	U	μg/L	0.03	0.25	A Wilson	5/8/2009
Thallium	U	μg/L	0.03	1	A Wilson	5/8/2009
Vanadium	U	μg/L	3.4	5	A Wilson	5/9/2009
Zinc	U	μg/L	1.9	5	A Wilson	5/8/2009

K00002336004

Project Name:

TVA-Ash Spill

Sample Description:

Emory River mile 1.9 at underwater weir

Sampler Project Name: TVA Ash Spill

Project Site No.:

2B

Station No.:

EMORY001.9RO

Date/Time Collected:

04/30/2009 10:55

Sampler's Name: County:

Brandy Long

Sample Matrix:

ROANE - 73

EFO:

Water

Sampling Agency:

Knoxville TDEC-WPC

Billing Code: Send Report To: Agency Invoiced: 327.34-20 TDEC-WPC

Priority Date:

Date/Time Received:

04/30/2009

Received By:

E McCrary

TDEC-WPC

14:25

TEST: Mercury	ME ⁻	ΓHOD: EPA 24	5.1			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	0.07J	μg/L	0.029	0.2	A Bass	4/30/2009

Field Determinations

Dissolved Oxygen: 9.22

Chlorine, residual:

Conductivity:

Temperature:

7.20

59

19.70

pH Units

uMHO

mg/L

CFS

pH:

Other:

Flow:

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

K00002336005

Project Name:

TVA-Ash Spill

Sample Description:

Emory River mile 1.7

Sampler Project Name: TVA Ash Spill

Project Site No.:

Station No.:

EMORY001.7RO

Date/Time Collected:

04/30/2009 11:07

Sampler's Name: County:

Brandy Long

ROANE - 73

Sample Matrix: EFO:

Water

Sampling Agency:

Knoxville

Billing Code:

TDEC-WPC 327.34-20

Send Report To: Agency Invoiced: TDEC-WPC TDEC-WPC

Priority Date:

Date/Time Received:

04/30/2009

14:25

Received By:

E McCrary

Field Determinations

pH:

8.68

pH Units

Chlorine, residual:

Conductivity: Temperature: 139

21.91

uMHO

Dissolved Oxygen: 11.58

mg/L

Other:

Flow:

CFS

TEST: Digestion Metals	METHOD: EPA 200.2					
ANALYTE	RESULT UNITS MDL MQL ANALYZED BY: DA					DATE
Digestion Metals	05/02/2009				A Wilson	5/2/2009

TEST: ICP METHOD: EPA 200.7						
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
iron	120	μg/L	2.9	10	A Wilson	5/14/2009

TEST: ICP-MS	ME	METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	UNITS MDL		ANALYZED BY:	DATE
Aluminum	130	μg/L	6.4	10	A Wilson	5/8/2009
Antimony	U	μg/L	0.33	1	A Wilson	5/8/2009
Arsenic	U	μg/L	0.93	5	A Wilson	5/9/2009
Barium	31	μg/L	2.5	5	A Wilson	5/8/2009
Beryllium	U	μg/L	0.11	1	A Wilson	5/8/2009
Cadmium	U	μg/L	0.41	1	A Wilson	5/8/2009
Chromium	U	μg/L	2.0	5	A Wilson	5/8/2009
Cobalt	0.19J	μg/L	0.04	1	A Wilson	5/8/2009
Copper	2.5	μg/L	0.38	1	A Wilson	5/8/2009
Lead	0.29J	μg/L	0.10	· 1	A Wilson	5/8/2009
Manganese	24	μg/L	0.42	1	A Wilson	5/8/2009
Nickel	1.1	μg/L	0.25	1	A Wilson	5/8/2009
Selenium	U	μg/L	1.3	5	A Wilson	5/9/2009
Silver	Ú	μg/L	0.03	0.25	A Wilson	5/8/2009
Thallium	0.034J	μg/L	0.03	1	A Wilson	5/8/2009
Vanadium	U	μg/L	3.4	5	A Wilson	5/9/2009
Zinc	U	μg/L	1.9	5	A Wilson	5/8/2009

K00002336005

Project Name:

TVA-Ash Spill

Sample Description:

Emory River mile 1.7

Sampler Project Name: TVA Ash Spill

Project Site No.:

Station No.:

EMORY001.7RO

Date/Time Collected: Sampler's Name:

04/30/2009 11:07

County:

Brandy Long

Sample Matrix:

ROANE - 73

EFO:

Water

Sampling Agency:

Knoxville TDEC-WPC

Billing Code: Send Report To: 327.34-20 TDEC-WPC

Agency Invoiced: **Priority Date:**

TDEC-WPC

Date/Time Received:

04/30/2009

14:25

Received By:

E McCrary

Flow:		CFS

8.68

139

21.91

pH Units

uMHO

mg/L

Field Determinations

Dissolved Oxygen: 11.58

Chlorine, residual:

Conductivity:

Temperature:

pH:

Other:

TEST: Mercury	ME ⁻	ΓHOD: EPA 24	5.1			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	0.08J	μg/L	0.029	0.2	A Bass	4/30/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

K00002336006

Project Name:

TVA-Ash Spill

Sample Description:

Emory River mile 0.1

Sampler Project Name: TVA Ash Spill

Chlorine, residual:

pH:

Other:

Flow:

pH Units

Project Site No.:

Conductivity:

Field Determinations

128 21.98

8.49

uMHO

Station No.:

EMORY000.1RO

Date/Time Collected: 04/30/2009 Temperature: Dissolved Oxygen: 10.94

mg/L

CFS

Sampler's Name:

11:17 Brandy Long

County:

ROANE - 73

Sample Matrix: EFO:

Water Knoxville

Sampling Agency:

Date/Time Received:

TDEC-WPC

Billing Code: Send Report To: 327.34-20 TDEC-WPC TDEC-WPC

Agency Invoiced: **Priority Date:**

Received By:

04/30/2009 14:25

E McCrary

TEST: Digestion Metals	MET	HOD: EPA 20	0.2			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	05/02/2009				A Wilson	5/2/2009

TEST: ICP	MET	ΓHOD: EPA 20	0.7			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	160	μg/L	2.9	10	A Wilson	5/14/2009

TEST: ICP-MS	ME.	THOD: EPA 20	0.8			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	220	µg/L	32.0	50	A Wilson	5/8/2009
Antimony	U	μg/L	0.33	1	A Wilson	5/8/2009
Arsenic	U	μg/L	0.93	5	A Wilson	5/9/2009
Barium	35	μg/L	2.5	5	A Wilson	5/8/2009
Beryllium	U	μg/L	0.11	1	A Wilson	5/8/2009
Cadmium	U	μg/L	0.41	1	A Wilson	5/8/2009
Chromium	U	μg/L	2.0	5	A Wilson	5/8/2009
Cobalt	0.26J	μg/L	0.04	1	A Wilson	5/8/2009
Copper	2.7	μg/L	0.38	1	A Wilson	5/8/2009
Lead	0.38J	μg/L	0.10	1	A Wilson	5/8/2009
Manganese	34	μg/L	0.42	1	A Wilson	5/8/2009
Nickel	1.3	μg/L	0.25	1	A Wilson	5/8/2009
Selenium	U	μg/L	1.3	5	A Wilson	5/9/2009
Silver	U	μg/L	0.03	0.25	A Wilson	5/8/2009
Thallium	0.038J	μg/L	0.03	1	A Wilson	5/8/2009
Vanadium	U	μg/L	3.4	5	A Wilson	5/9/2009
Zinc	U	μg/L	1.9	5	A Wilson	5/8/2009

K00002336006

Project Name:

TVA-Ash Spill

Sample Description:

Emory River mile 0.1

Sampler Project Name: TVA Ash Spill

Project Site No.:

Station No.:

EMORY000.1RO

Date/Time Collected:

04/30/2009 11:17

Sampler's Name:

Brandy Long

County:

ROANE - 73

Sample Matrix: EFO:

Water

Sampling Agency:

Knoxville

Billing Code:

TDEC-WPC

Send Report To:

327.34-20 TDEC-WPC

Agency Invoiced: **Priority Date:**

TDEC-WPC

Date/Time Received:

04/30/2009

14:25

Received By:

TEST: Mercury

E McCrary

METHOD: EPA 245.1

Field Determinations

Dissolved Oxygen: 10.94

Chlorine, residual:

Conductivity:

Temperature:

8.49

128

21.98

pH Units

uMHO

mg/L

CFS

:Ha

Other:

Flow:

ANALYZED BY: MDL MQL ANALYTE RESULT UNITS DATE Mercury 0.06J μg/L 0.029 0.2 A Bass 4/30/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

K00002336007

Project Name:

TVA-Ash Spill

Sample Description:

Clinch River mile 2.3

Sampler Project Name: TVA Ash Spill

Project Site No.:

Station No.: Date/Time Collected:

CLINC002.3RO 04/30/2009 11:27

Sampler's Name:

Brandy Long

County:

ROANE - 73

Sample Matrix: EFO:

Water

Sampling Agency:

Knoxville TDEC-WPC

Billing Code: Send Report To: 327.34-20 TDEC-WPC

Agency Invoiced: **Priority Date:**

TDEC-WPC

Date/Time Received:

04/30/2009

14:25

Received By:

E McCrary

Field Determinations

pH:

7.90

pH Units

uMHO

Chlorine, residual:

Conductivity: Temperature:

98

22.00

Dissolved Oxygen: 9.83

mg/L

Other:

Flow:

CFS

TEST: Digestion Metals	MET	HOD: EPA 20	0.2			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	05/02/2009				A Wilson	5/2/2009

TEST: ICP	ME.	THOD: EPA 20	0.7		·	
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	210	μg/L	2.9	10	A Wilson	5/14/2009

TEST: ICP-MS	ME.					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	390	μg/L	32.0	50	A Wilson	5/8/2009
Antimony	U	μg/L	0.33	1	A Wilson	5/8/2009
Arsenic	1.5J	μg/L	0.93	5	A Wilson	5/9/2009
Barium	36	μg/L	2.5	. 5	A Wilson	5/8/2009
Beryllium	U	μg/L	0.11	1	A Wilson	5/8/2009
Cadmium	U	μg/L	0.41	1	A Wilson	5/8/2009
Chromium	U	μg/L	2.0	5	A Wilson	5/8/2009
Cobalt	0.36J	μg/L	0.04	1	A Wilson	5/8/2009
Copper	3.7	μg/L	0.38	1	A Wilson	5/8/2009
Lead	0.56J	μg/L	0.10	1.	A Wilson	5/8/2009
Manganese	29	μg/L	0.42	1	A Wilson	5/8/2009
Nickel	1.5	μg/L	0.25	1	A Wilson	5/8/2009
Selenium	2.6J	μg/L	1.3	5	A Wilson	5/9/2009
Silver	U	μg/L	0.03	0.25	A Wilson	5/8/2009
Thallium	0.043J	μg/L	0.03	1	A Wilson	5/8/2009
Vanadium	U	μg/L	3.4	5	A Wilson	5/9/2009
Zinc	U	μg/L	1.9	5	A Wilson	5/8/2009

K00002336007

Project Name:

TVA-Ash Spill

Sample Description:

Clinch River mile 2.3

Sampler Project Name: TVA Ash Spill

Project Site No.:

Station No.:

CLINC002.3RO

Date/Time Collected:

04/30/2009 11:27

Sampler's Name: County:

Brandy Long

ROANE - 73

Sample Matrix: EFO:

Water

Sampling Agency:

Knoxville

Billing Code:

TDEC-WPC 327.34-20

Send Report To: Agency Invoiced:

TDEC-WPC TDEC-WPC

Priority Date:

Date/Time Received:

04/30/2009

14:25

Received By:

E McCrary

pH:	7.90	pH Units
Chlorine, residual:	}	
Conductivity:	98	uMHO

22.00 Temperature:

Field Determinations

Dissolved Oxygen: 9.83

Other:

Flow:

mg/L

CFS

TEST: Mercury	ME	ΓHOD: EPA 24	5.1			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	0.08J	μg/L	0.029	0.2	A Bass	4/30/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

K00002336008

Project Name:

TVA-Ash Spill

Sample Description:

Clinch River TVA Discharge Point

Sampler Project Name: TVA Ash Spill

Project Site No.:

5A

Station No.:

TN0005452Outfall002

Date/Time Collected: Sampler's Name:

04/30/2009 11:37

County:

Brandy Long

Sample Matrix:

ROANE - 73

EFO:

Water

Sampling Agency:

Knoxville TDEC-WPC

Billing Code:

327.34-20 TDEC-WPC

Send Report To: Agency Invoiced:

TDEC-WPC

Priority Date:

Date/Time Received:

04/30/2009

14:25

Received By:

E McCrary

Field Determinations

pH:

7.62

pH Units

Chlorine, residual:

Conductivity:

88

uMHO

Temperature: **Dissolved Oxygen: 9.63**

22.35

mg/L

Other:

Flow:

CFS

TEST: Digestion Metals	MET	HOD: EPA 20	0.2			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	05/02/2009				A Wilson	5/2/2009

TEST: ICP	ME	THOD: EPA 20	0.7			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	290	μg/L	2.9	10	A Wilson	5/14/2009

TEST: ICP-MS	ME.	THOD: EPA 20	0.8			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	96	μg/L	6.4	10	A Wilson	5/8/2009
Antimony	U	μg/L	0.33	1	A Wilson	5/8/2009
Arsenic	1.9J	μg/L	0.93	5	A Wilson	5/9/2009
Barium	8	μg/L	2.5	5	A Wilson	5/8/2009
Beryllium	U	μg/L	0.11	1	A Wilson	5/8/2009
Cadmium	U	μg/L	0.41	1	A Wilson	5/8/2009
Chromium	2.2J	μg/L	2.0	5	A Wilson	5/8/2009
Cobalt	0.099J	μg/L	0.04	1	A Wilson	5/8/2009
Copper	1.8	μg/L	0.38	1	A Wilson	5/8/2009
Lead	0.17J	μg/L	0.10	1	A Wilson	5/8/2009
Manganese	9.2	μg/L	0.42	1	A Wilson	5/8/2009
Nickel	0.29J	μg/L	0.25	1	A Wilson	5/8/2009
Selenium	U	μg/L	1.3	5	A Wilson	5/9/2009
Silver	U	μg/L	0.03	0.25	A Wilson	5/8/2009
Thallium	U	μg/L	0.03	1	A Wilson	5/8/2009
Vanadium	U	μg/L	3.4	5	A Wilson	5/9/2009
Zinc	Ŭ	μg/L	1.9	5	A Wilson	5/8/2009

K00002336008

Project Name:

TVA-Ash Spill

Sample Description:

Clinch River TVA Discharge Point

Sampler Project Name: TVA Ash Spill

Project Site No.:

5A

Station No.:

TN0005452Outfall002

Date/Time Collected:

04/30/2009 11:37

Sampler's Name: County:

Brandy Long

ROANE - 73

Sample Matrix: EFO:

Water

Sampling Agency:

Knoxville

Billing Code:

TDEC-WPC 327.34-20

Send Report To: Agency Invoiced: TDEC-WPC TDEC-WPC

Priority Date:

Date/Time Received:

04/30/2009

14:25

Received By:

E McCrary

TEST: Mercury	MET	HOD: EPA 245.1
ΔΝΔΙ ΥΤΕ	PEGIIIT	LIMITS

ANALITE	IVESCEI	UNITS	MIDE	141047	ANALIZED DI.	DAIL
Mercury-	0.04J	μg/L	0.029	0.2	A Bass	4/30/2009

Field Determinations

Dissolved Oxygen: 9.63

Chlorine, residual:

Conductivity:

Temperature:

7.62

22.35

ΔΝΔΙ ΥΖΕΌ ΒΥ-

88

pH Units

uMHO

mg/L

CFS

DATE

pH:

Other:

Flow:

MDI

MOL

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

K00002336009

Project Name:

TVA-Ash Spill

Sample Description:

Sampler Project Name: TVA Ash Spill

Clinch River mile 4.5 near Sugar Grove Valley R Chlorine, residual:

Field Determinations

Dissolved Oxygen: 10.95

Conductivity:

Temperature:

8.42

133

21.85

pH Units

uMHO

mg/L

CFS

pH:

Other:

Flow:

Project Site No.:

Station No.:

CLINC004.5RO

Date/Time Collected:

04/30/2009 11:49

Sampler's Name:

Brandy Long

County:

ROANE - 73

Sample Matrix:

Water

EFO:

Knoxville

Sampling Agency: **Billing Code:**

TDEC-WPC 327.34-20

Send Report To: Agency Invoiced:

TDEC-WPC TDEC-WPC

Priority Date:

Date/Time Received:

04/30/2009 14:25

Received By:

E McCrary

TEST: Digestion Metals	METHOD: EPA 200.2					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	05/02/2009				A Wilson	5/2/2009

TEST: ICP METHOD: EPA 200.7						
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	84	μg/L	2.9	10	A Wilson	5/14/2009

TEST: ICP-MS METHOD: EPA 200.8						
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	90	μg/L	6.4	10	A Wilson	5/8/2009
Antimony	U	μg/L	0.33	1	A Wilson	5/8/2009
Arsenic	U	μg/L	0.93	5	A Wilson	5/9/2009
Barium	31	μg/L	2.5	5	A Wilson	5/8/2009
Beryllium	U	μg/L	0.11	1	A Wilson	5/8/2009
Cadmium	U	μg/L	0.41	1	A Wilson	5/8/2009
Chromium	2.1J	μg/L	2.0	5	A Wilson	5/8/2009
Cobalt	0.17J	μg/L	0.04	1	A Wilson	5/8/2009
Copper	2.7	μg/L	0.38	1	A Wilson	5/8/2009
Lead	0.27J	μg/L	0.10	1	A Wilson	5/8/2009
Manganese	27	μg/L	0.42	1	A Wilson	5/8/2009
Nickel	1.3	μg/L	0.25	1	A Wilson	5/8/2009
Selenium ·	U	μg/L	1.3 ·	5	· A Wilson	5/9/2009
Silver	U	μg/L	0.03	0.25	A Wilson	5/8/2009
Thallium	Ü	μg/L	0.03	1	A Wilson	5/8/2009
Vanadium	U	μg/L	3.4	5	A Wilson	5/9/2009
Zinc	U	μg/L	1.9	5	A Wilson	5/8/2009

K00002336009

Project Name:

TVA-Ash Spill

Sample Description:

Clinch River mile 4.5 near Sugar Grove Valley R Chlorine, residual:

Sampler Project Name: TVA Ash Spill

Project Site No.:

Station No.:

CLINC004.5RO

Date/Time Collected:

04/30/2009

Sampler's Name: County:

Brandy Long

Sample Matrix:

ROANE - 73

EFO:

Water

Sampling Agency:

Knoxville TDEC-WPC

Billing Code: Send Report To: 327.34-20 TDEC-WPC

Agency Invoiced:

TDEC-WPC

Priority Date:

Date/Time Received:

04/30/2009

14:25

11:49

Received By:

TEST: Mercury **ANALYTE**

Mercury

E McCrary

ME	THOD: EPA 24	5.1			
RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
0.09J	μg/L	0.029	0.2	A Bass	4/30/2009

Field Determinations

Dissolved Oxygen: 10.95

Conductivity:

Temperature:

8.42

133

21.85

pH Units

uMHO

mg/L

CFS

pH:

Other:

Flow:

J - Estimated value between MDL and MQL

MDL - Method Detection Limit MQL - Method Quantitation Limit